

**METHODS AND SYSTEM FOR DATA PACKET FILTERING
USING TREE-LIKE HIERARCHY**

ABSTRACT

5 **[056]** A method of filtering an incoming data packet stream in a data packet transmission system. The method comprises a step of defining a tree-like hierarchy for a plurality of filter conditions such that the filter conditions are divided into groups of filters, each of the groups associated with one or more fields having pre-determined condition values. The groups are arranged in long edges of the tree-like hierarchy. Next, a data packet stream is received at a point of ingress to the data packet transmission system and condition values along the edges of the tree-like hierarchy are compared to specified portions of the data packet stream to determine where there are matches. If matches are made along an entire edge of the tree-like hierarchy, the data packet stream is filtered according to the number of condition values compared as opposed to the number of filters.